Wirewound Resistors, Commercial Power, Axial Lead

FEATURES

- High performance for low cost
- Auto insertable
- High temperature coating for environmental protection
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

e3

RoHS COMPLIANT

HALOGEN FREE

GREEN (5-2008)

APPLICATIONS

Kitchen appliances:

- Percolators, blenders, mixers, ranges, toasters, deep fryers

Entertainment and consumer devices:

- Radios, televisions
- Computers and power supplies

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	POWER RATING $P_{25\ °C}$ W	RESISTANCE RANGE (1) Ω	TOLERANCE ± %	WEIGHT (typical) g
CA0001	1.0	0.1 to 1K	5, 10	0.65
CA0002	2.0	0.1 to 1K	5, 10	0.80

Note

(1) E24 decade values are available, although others may be available upon request

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	CA HIGH VOLUME RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	± 350
Short Time Overload	-	5 x rated power for 5 s
Maximum Working Voltage	V	$(P \times R)^{1/2}$
Dielectric Withstanding Voltage	V_{AC}	350
Operating Temperature Range	°C	-65 to +275
Terminal Strength (Minimum)	lb	10

GLOBAL PART NUMBER INFORMATION

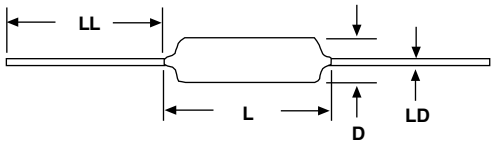
Global Part Numbering Example: CA000150R00JE66

C	A	0	0	0	1	5	0	R	0	0	J	E	6	6			

GLOBAL MODEL	VALUE	TOLERANCE	PACKAGING	SPECIAL
(See Standard Electrical Specifications table / Global Model column for options)	**R** = decimal **K** = thousand **R1500** = 0.15 Ω **1K000** = 1000 Ω	**J** = ± 5.0 % **K** = ± 10.0 %	**E66** = lead (Pb)-free, tape/reel	(Dash number) (Up to 3 digits) From **1 to 999** as applicable

For technical questions, contact: ww2aresistors@vishay.com

DIMENSIONS



GLOBAL MODEL	DIMENSIONS in inches [millimeters]			
	L ± 0.040 [1.0]	D ± 0.020 [0.5]	LD ± 0.002 [0.05]	LL ± 0.079 [2.0]
CA0001	0.354 [9]	0.138 [3.5]	0.024 [0.6]	1.024 [26]
CA0002	0.453 [11.5]	0.177 [4.5]	0.031 [0.8]	1.378 [35]

MATERIAL SPECIFICATIONS

Element: copper-nickel alloy or nickel-chrome alloy, depending on resistance value

Core: ceramic

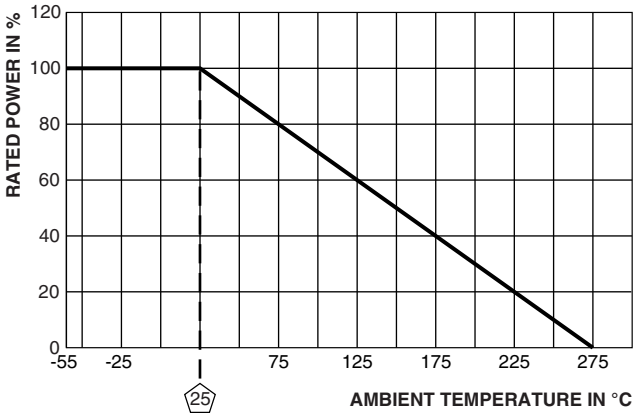
Coating: special high temperature material

Terminals: tin plated copper

End Caps: tin plated steel

Part Marking: E24 color bands

DERATING



PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS
Thermal Shock	-55 °C to +275 °C, 5 cycles, 30 min dwell time	± (5.0 % + 0.05 Ω) ΔR
Short Time Overload	5 x rated power for 5 s	± (1.0 % + 0.05 Ω) ΔR
Dielectric Withstanding Voltage	350 V_{AC} for 1 min	± (2.0 % + 0.05 Ω) ΔR
Low Temperature Operation	-65 °C, full rated working voltage for 45 min	± (3.0 % + 0.05 Ω) ΔR
Humidity	75 °C, 90 % - 100 % RH, 240 h	± (5.0 % + 0.05 Ω) ΔR
Load Life	1000 h at rated power, +25 °C, 1.5 h “ON”, 0.5 h “OFF”	± (5.0 % + 0.05 Ω) ΔR
Terminal Strength	10 pounds for 30 s; body twisted about axis, 3 x 360° rotations	± (2.0 % + 0.05 Ω) ΔR
Resistance to Solder Heat	Terminal immersed 3.5 s in molten solder at 1/8" to 3/16" from body	± (1.0 % + 0.05 Ω) ΔR

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “Vishay”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Vishay products are not designed for use in life-saving or life-sustaining applications or any application in which the failure of the Vishay product could result in personal injury or death unless specifically qualified in writing by Vishay. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.